Applicant: Keith Hoene et al. Serial No.: 09/887,816

Filed: June 25, 2001

Docket No.: 10007759-1 (H303.210.101)

Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

### IN THE CLAIMS

Please cancel claims 4-5, 12-13, and 23.

Please amend claims 1-3, 6-11, 19-22, and 24-27 as follows:

1. (Currently Amended) A method of network computing:

using a server with a virus monitor to identify a at least one client computer that is infected with a virus or susceptible to a virus by verifying that the at least one client computer has at least one of a first combination of a client-server connection and a disabled status of a virus protector of the at least one client computer and a second combination of an attempted client-server connection and a non-enabled status of the virus protector of the at least one client computer; and

isolating the <u>at least one virus-infected client computers and virus-susceptible</u> client computers from the server and from a computing network connected to the server <u>by at least one of terminating the client-server connection for the at least one client computer having the <u>disabled status of the virus protector and preventing the attempted client-server connection</u> for the at least one client computer having a non-enabled status of the virus protector.</u>

2. (Currently Amended) The method of claim 1 wherein the using a server step further comprises:

scanning the <u>at least one</u> client computer with a virus monitor of at least one of the server and the <u>at least one</u> client computer.

3. (Currently Amended) The method of claim 1 wherein the isolating the at least one client computer step further comprises:

tracking a client identifier of the <u>at least one virus-infected and virus-susceptible</u> client computers; and

preventing thea client-server connection and a network communications between the at least one virus-infected client computers and virus-susceptible client computer relative to and the computing network.

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# 4-5. (Canceled)

6. (Currently Amended) A method of virus-controlled network access comprising: using a server of a network with a virus monitor, via a server-initiated communication, to identify at least one client computers that fails to produce an approved virus scan report; and

isolating the at least one client computers not having without an the approved virus scan report from authorized communication with the server.

7. (Currently Amended) A method of maintaining a virus-controlled network computing system comprising:

booting a <u>at least one</u> client computer to establish a client-server connection with a server and to <u>perform a scan by the at least one client computer of</u>-the <u>at least one</u> client computer for a virus;

reporting the results of the virus scan from the <u>at least one</u> client computer to the server; and

selectively permitting the <u>at least one</u> client computer authorized access to the server through the client-server connection when the virus scan report detects no viruses and denying the <u>at least one</u> client computer access to the server when a <u>virus is detected or</u> no valid virus report is provided by the <u>at least one</u> client computer.

8. (Currently Amended) The method of claim 7 wherein booting the at least one client computer and further comprising comprises:

establishing the client-server connection based on the <u>at least one</u> client computer maintaining a virus protector of the <u>at least one</u> client computer in an enabled mode.

9. (Currently Amended) The method of claim 7\_8 wherein the terminating step and further comprising emprises:

querying the client periodically to determine if the virus protector of the <u>at least one</u> client computer remains enabled.

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10. (Currently Amended) The method of claim 7 and further comprising:

terminating the client-server connection if the virus definitions of the virus protector of the at least one client computer have not been updated within a specified date criteria of the server.

11. (Currently Amended) A method of preventing network virus migration within a network comprising:

monitoring a virus susceptibility of each client computer of the network <u>based on at</u>

<u>least one of whether a virus protector of the client computer is enabled and whether the client</u>

<u>computer provides a server of the network with a valid virus scan report;</u> and

tracking <u>each</u> virus\_susceptible client computers and preventing a client-server connection between each virus-susceptible client computer and the server.

# 12-13. (Canceled)

14. (Currently Amended) The method of claim 11 wherein the tracking <u>each virus</u>-susceptible client computer and preventing step further comprises:

terminating the client-server connection for at least one of <u>each</u>a virus\_susceptible client computer and <u>each</u>a virus-infected client computer.

15. (Currently Amended) The method of claim 14 wherein tracking and preventing step further terminating the client-server connection comprises:

identifying an address of each virus-susceptible <u>client computer</u> and <u>each</u> virus-infected client computer to selectively prevent further client-server connections with <u>thoseeach virus-infected client computer and each virus-susceptible</u> client computers by establishing a quarantine of <u>the each virus-infected identified</u> client computers and <u>each virus-susceptible</u> client computers.

16. (Original) A virus exclusion network system comprising: a client computer including a virus protector;

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a network server including a virus monitor configured for preventing an authorized network connection between the client computer and the server when the client computer fails to produce at least one of a report of an up-to-date virus scan of the client computer and a confirmation of enablement of the virus protector of the client computer.

- 17. (Original) The system of claim 16 wherein the client computer further comprises: a virus protector for scanning the client computer for viruses.
- 18. (Original) The system of claim 16 wherein the virus monitor of the server further comprises:

a virus protector for scanning the client computer and files written by the client computer.

- 19. (Currently Amended) A server comprising:
  - a controller;
  - a virus monitor including:
    - a virus protector with a scanning function;
    - a virus definition source; and
  - a quarantine monitor configured for preventing a client-server connection for at least one virus-susceptible client computers that are virus-infected or virus-susceptible by verifying that the at least one virus-susceptible client computer has at least one of a disabled virus protector and a lack of a virus protector and configured for tracking an identity of those the at least one virus-susceptible client computers.
- 20. (Currently Amended) A client computer comprising:
  - a controller;
- a virus protector configured for detecting and eradicating viruses on the client computer, for maintaining real-time virus protection, and for producing a virus scan report to a server to confirm that the client computer is virus-free and for notifying the server that the virus protector is enabled, and thereby eligible to connect to the server with authorized access privileges.

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21. (Currently Amended) A computing network virus monitor comprising:

a virus protector;

a quarantine monitor configured for preventing network communications to a server of a network originating from eacha- client computer that is virus-infected or that is virus-susceptible by having at least one of a disabled virus protector and a virus definition set that is not up-to-date, and configured for tracking an identity of those each virus-infected client computer and each virus susceptible client computers.

22. (Currently Amended) A virus quarantine monitor of a server comprising:

a client computer identifier;

a virus identifier; and

a blocking mechanism configured for signaling the server to prevent client-server connections with at least one client computers identified as being virus susceptible or virus-infected or being virus-susceptible by having at least one of a disabled virus protector and an out-of-date virus definition file of the virus protector.

- 23. (Canceled).
- 24. (Currently Amended) A computer-readable medium having computer-executable instructions for performing a method of preventing network virus migration within a network, the method comprising:

monitoring a virus susceptibility of each client computer of the network <u>based on at</u>

<u>least one of whether a virus protector of the client computer is enabled and whether the client</u>

<u>computer provides a server of the network with a valid virus scan report;</u> and

tracking virus susceptible client computers and preventing a client-server connection between each virus-susceptible client computer and the server.

25. (Currently Amended) A computer-readable medium having computer-executable instructions for performing a method of network computing, the method comprising:

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using a server with a virus monitor to identify a at least one client computer that is infected with a virus or susceptible to a virus wherein identifying the at least one virus-susceptible client computer includes verifying that the at least one client computer has at least one of a first combination of a client-server connection and a disabled status of a virus protector of the at least one client computer and a second combination of an attempted client-server connection and a non-enabled status of the virus protector of the at least one client computer; and

isolating the virus-infected client computers and virus-susceptible client computers from the server and from a computing network connected to the server by at least one of terminating the client-server connection for the at least one virus-infected client computer or the at least one client computer having the disabled status of the virus protector and preventing the attempted client-server connection for the at least one virus-infected client computer or the at least one client computer having a non-enabled status of the virus protector.

26. (Currently Amended) A computer-readable medium having computer-executable instructions for performing a method of monitoring network connections, the method comprising:

preventing an authorized network connection between a client computer and a server when the client computer fails to produce at least one of a report of an up-to-date virus scan of the client computer and a confirmation of enablement of the virus protector of the client computer.

27. (Currently Amended) A computer-readable medium having computer-executable instructions for performing a method of quarantining client computers in a network, the method comprising:

preventing a client-server connection for <u>each virus-infected</u> client computers <u>and ch</u> that are virus-infected or virus-susceptible <u>client computer</u>; and

tracking an identity of the each virus-infected client computer and each virus-susceptible client computers.